REMARKS

Claims 1-12 and 14-22 are pending in this application. Claims 7-9 and 19-22 has been withdrawn by the examiner. Claim 13 has been cancelled without prejudice or disclaimer. Claims 1-6, 10-12 and 14-17 are currently under examination. Without acquiescing in any rejection or objection, claim 1 is amended by adding "to detect whether the patient has been infected" and deleting "at least one step of" for clarity, along with other clarifying amendments. Support for the amendment can be found throughout the specification, see for example, page 1 (first paragraph), page 2-3 (Brief Description of the Invention), and 4 (Sample Preparation), of the published PCT application (WO 03/060520), and the original claim 1. The amendment to claim 1 has been made solely to clarify that the diagnostic method may be performed on the sample. Claims 1, 10, and 11 are amended for clarity as discussed herein. Therefore, no new matter is introduced. The Office Action is discussed below:

Objections and Rejections Withdrawn:

Applicants thank the examiner for withdrawal of the Objection to claims 7-17; Rejection of claims 1-6 under 35 U.S.C. 112, second paragraph; Rejection of claim 1 under 35 U.S.C. 102(b); and Rejection of claim 1, 4-6 under U.S.C. 103(a).

Anticipation Rejection Maintained:

On pages 2-5 of the Office Action, the examiner has maintained the rejection of claims 1 and 3 under 35 U.S.C. 102(b) allegedly as being anticipated by Biswas *et al.* (1997, Journal of Clinical Microbiology 35, 1560-1564) for the reason set forth in the previous office action. In particular, the examiner asserts that Biswas *et al.* discloses performing at least one step of the diagnostic method in the presence of DNase. The applicant does not agree with the examiner. However, without acquiescing to the objection, and solely for the purpose of advancing prosecution of the application, claim 1 part (b) has been amended to specify that the diagnostic method is performed in the presence of DNase. As explained in the previous response, as filed on December 3,

2007, DNase is removed in the method disclosed by Biswas *et al.* before detection of target RNA by RT-PCR, so there is no disclosure in Biswas *et al.* of performing a diagnostic method in the presence of DNase. Thus, claim 1 and dependent claim 3 are not anticipated by Biswas *et al.* Withdrawal of the rejection is therefore solicited.

Obviousness Rejection Maintained:

On pages 5-8 of the Office Action, the examiner has maintained the rejection of claims 1-2 under 35 U.S.C. 103(a) allegedly as being unpatentable over Biswas *et al.* in view of Holt *et al.* (TWGDAM Validation May 2001 pgs. 66-67) for the reasons set forth in the previous office action. In particular, the examiner asserts that Biswas *et al.* teach a method for preparing a human patient sample for performing a diagnostic method in the presence of DNase, and that Holt teaches partially degraded DNA samples from blood and saliva samples using 0.005 units/μl of DNase I. The examiner asserts that it would have been *prima facie* obvious at the time the invention was made to modify the method of treatment in the presence of DNase as taught by Biswas *et al.* to optimize the amount of DNase because Biswas *et al.* and Holt *et al.* teach treatment with DNase in bodily fluids. Applicants respectfully disagree with the examiner and refer to above clarification that Biswas *et al.* do not disclose performing a diagnostic method in the presence of DNase.

In this context, applicants request the examiner to consider the dictates of the MPEP that the applied references must teach or suggest all claim limitations. Applicants submit that the rejections do not meet this test and refer the examiner that:

> "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).
>
> *See*, MPEP § 2143.03 at 2100-142 (Rev. 6, September 2007).

In this case, even if the cited references were combined, the resulting process would not disclose all claim limitations, for example, would not disclose "performing a

diagnostic method in the presence of DNase". Accordingly, Biswas *et al.* in combination with and Holt *et al.* disclosure do not render the claimed invention obvious.

Regarding Holt *et al.*, the use of 0.005 units/μl of DNase I is referred to at page 67 (left column, penultimate sentence of "Sample Preparation and DNA Extraction"). Contrary to the examiner's assertion, however, there is no disclosure of treatment with DNase in bodily fluids. It is simply stated in the passage on page 67 that partially degraded DNA sample series were prepared using 0.005 units/μl of DNase I. There is no disclosure of what DNA is partially degraded by DNase I, nor any reference to treatment of bodily fluids with DNase I.

Holt *et al.* relate to validation of certain PCR amplification kits for forensic DNA casework. There is no suggestion in this document to perform detection methods in the presence of DNase. The cited use of DNase I is simply for preparation of a partially degraded DNA sample series. Indeed, since Holt *et al.* relate to PCR amplification of DNA, presence of DNase in such detection methods would be expected to adversely affect amplification. Holt *et al.* are concerned with DNA genotyping of human tissue samples, not with diagnostic methods to detect whether a patient has been infected with an infectious agent. The skilled person would not have looked to the disclosure of Holt *et al.* when seeking to provide improved methods for detection of infectious agents using human patient samples, nor would they have found any teaching or suggestion to perform detection methods in the presence of DNase.

Thus, the skilled person would have had no reason to combine the disclosure of Biswas *et al.* and Holt *et al.* Moreover, as discussed above, the deficiencies of Biswas *et al.* are not rectified by Holt *et al.* Consequently, Biswas *et al.* disclosure in view of Holt *et al.* does not render the inventions according to claims 1 and 2 obvious.

Withdrawal of the obviousness rejection is therefore solicited.

New Obviousness Rejections:

On pages 9-12 of the Office Action, the examiner has rejected claims 1, 4-6, 10-12, and 14-17 under 35 U.S.C. 103(a) allegedly as being unpatentable over Sheiness *et al.* (US Patent No. 5,776,694) in view of Holt *et al.* In particular, the examiner alleges that Sheiness *et al.* teach a method for preparing a human clinical sample for performing a diagnostic method on the sample for detection of an infectious agent, wherein the sample is an endocervical fluid sample or a vaginal fluid sample, wherein the method comprises the steps of: a) treating the sample to reduce an inhibitory effect of the sample on the diagnostic method. The examiner acknowledges that Sheiness *et al.* do not teach a method step, b) performing at least one step of the diagnostic method in the presence of DNase. However, the examiner alleges that it would have been *prima facie* obvious at the time the invention was made to incorporate DNase as taught by Holt *et al.* into the method for preparing a human patient sample as taught by Sheiness *et al.* because Sheiness *et al.* and Holt *et al.* teach treatment with DNase in bodily fluids.

Applicants respectfully disagree with the examiner and refer to the amended claim 1 that recite that (see step (b)) "performing the diagnostic method in the presence of DNase." The examiner has acknowledged that Sheiness *et al.* do not teach performing a diagnostic method for detection of an infectious agent in the presence of DNase, and the applicants refer to the above clarification that Holt *et al.* do not rectify this deficiency.

Also, as explained above, the cited use of DNase I in Holt *et al.* is simply to prepare a partially degraded DNA sample series. There is no disclosure of what DNA is partially degraded by DNase I. Holt *et al.* provide no teaching or suggestion to perform a diagnostic method in the presence of DNase, nor any disclosure of treatment of bodily fluids with DNase. Holt *et al.* are concerned with DNA genotyping of human tissue samples, not with diagnostic methods for detection of an infectious agent nor to detect if a patient has been infected. Accordingly, the skilled person would have had no reason to combine the disclosure of Sheiness *et al.* In any event, the deficiencies of Sheiness *et al.* are not rectified by Holt *et al.* Therefore, Sheiness *et al.* disclosure in

view of Holt *et al.* does not render the inventions according to claims 1, 4-6, 10-12, and 14-17 obvious.

At page 10 of the Action, the examiner alleges that Sheiness *et al.* teach a method in which the sample is treated with hydrogen peroxide (1.8%). The examiner appears to have misunderstood the reason for use of hydrogen peroxide in Example 7. As is well known to the skilled person, and as explained in Example 1 of Sheiness *et al.*, hydrogen peroxide is used for development of a colored insoluble product by horseradish peroxidase during the detection process. Example 7 of Sheiness *et al.* states that the dipstick was moved through the wells of a 7-well reagent cassette. The final well contains Substrate Solution I (containing hydrogen peroxide), and so is used at the end of the detection process. Thus, the hydrogen peroxide in Example 7 does not have the effect of reducing an inhibitory effect of the sample on the diagnostic method, as required by the present claims.

At page 10 of the Action, the examiner also alleges that of Sheiness *et al.* teach a method wherein the sample has an average molecular weight between 20 and 25 kDa. The examiner appears to be confused in relation to the subject matter of claim 11. According to claim 11, the PVA, not the sample, has an average molecular weight between 20 and 25 kDa. Solely for the purpose of clarification, applicants amend claim 11, for clarity, to recite that "the sample is treated with PVA at a working concentration of between 0.01 and 0.5% w/v, wherein the PVA has an average molecular weight between 20 and 25 kDa."

In sum, none of the reference contain teachings to render applicants' claimed invention obvious to one of ordinary skill in the art at the time the invention was made. A conclusion to the contrary can only be attained through a proscribed hindsight reconstruction of the prior art in view of the teachings of the applicants' specification. *See Grain Processing Corp. v. American Maize-Products Corp.*, 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988). Applicants therefore request withdrawal of the obviousness rejections.

New Ground of Objection:

On pages 8-9 of the Office Action, the examiner has objected to claim 10 for informalities and suggested to include the full recitation of the terms "PVA" and "PVP" followed by their acronym in parenthesis. Applicants amend the claim for clarity and as suggested by the examiner.

REQUEST

Applicants submit that claims 1-6, 10-12, and 14-17 are in condition for allowance and respectfully request favorable consideration to that effect. The examiner is invited to contact the undersigned at (202) 416-6800 should there be any questions.

Respectfully submitted,

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Date

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